

# Service Manual

Fully Automatic Turntable System

## SL-B300

[E], [XL], [EG], [EB], [EH],  
[EF], [Ei], [EC], [XA], [XM]

### Areas

- \* [E] is available in Switzerland and Scandinavia.
- \* [XL] is available in Australia.
- \* [EG] is available in F.R. Germany.
- \* [EB] is available in Belgium.
- \* [EH] is available in Holland.
- \* [EF] is available in France.
- \* [Ei] is available in Italy.
- \* [EC] is available in Czechoslovakia.
- \* [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
- \* [XM] is available in Central South America.



is the standard mark for plug-in-connector type. Products carrying this mark are interchangeable and adaptable among each other.

English

## Specifications

Specifications are subject to change without notice for further improvement.  
Weight and dimensions shown are approximate.

### ■ General

|                               |                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Power supply:</b>          | 220V, AC 50/60 Hz<br>(For Continental Europe)                                                           |
| <b>Power consumption:</b>     | 3 W                                                                                                     |
| <b>Dimensions:</b><br>(W×H×D) | 43 × 10 × 37.5 cm<br>(16-15/16" × 3-15/16" × 14-3/4")                                                   |
|                               | Maximum height when top<br>(dust cover) is open.<br>43 × 37 × 41 cm<br>(16-15/16" × 14-9/16" × 16-1/8") |
| <b>Weight:</b>                | 3.5 kg (7.7 lb.)                                                                                        |

|                                         |                                                                                                                        |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Effective length:</b>                | 230 mm (9-1/16")                                                                                                       |
| <b>Overhang:</b>                        | 15 mm (19/32")                                                                                                         |
| <b>Tracking error angle:</b>            | Within 2°32' at the outer groove<br>of 30 cm (12") record<br>Within 0°32' at the inner groove<br>of 30 cm (12") record |
| <b>Effective mass:</b>                  | 13.5 g (including cartridge)                                                                                           |
| <b>Stylus pressure:</b>                 | 1.25 g                                                                                                                 |
| <b>Applicable cartridge<br/>weight:</b> | 6 g                                                                                                                    |

### ■ Turntable section

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Type:</b>                 | Fully automatic turntable<br>Auto start<br>Auto return<br>Auto stop<br>Repeat play<br>Manual play |
| <b>Drive method:</b>         | Belt drive                                                                                        |
| <b>Motor:</b>                | DC motor                                                                                          |
| <b>Drive control method:</b> | Frequency generator<br>servo control                                                              |
| <b>Turntable platter:</b>    | Aluminum die-cast<br>Diameter 30.4 cm (12 inches)                                                 |
| <b>Turntable speeds:</b>     | 33-1/3 rpm and 45 rpm                                                                             |
| <b>Wow and flutter:</b>      | 0.045% WRMS (JIS C5521)<br>±0.06% peak<br>(IEC 98A Weighted)                                      |
| <b>Rumble:</b>               | -70 dB (IEC 98A Weighted)                                                                         |

### ■ Tonearm section

|              |                                                                                  |
|--------------|----------------------------------------------------------------------------------|
| <b>Type:</b> | Statically-balanced straight<br>tonearm<br>Plug-in connector cartridge<br>system |
|--------------|----------------------------------------------------------------------------------|

### ■ Cartridge section

|                                        |                                                                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Type:</b>                           | Moving magnet stereo cartridge                                                                                                   |
| <b>Magnet circuit:</b>                 | All laminated core                                                                                                               |
| <b>Frequency response</b>              | 10 Hz~35 kHz<br>20 Hz~10 kHz ±1 dB                                                                                               |
| <b>Output voltage:</b>                 | 2.5 mV at 1 kHz, 5 cm/s. zero to<br>peak lateral velocity<br>(7 mV at 1 kHz, 10 cm/s. zero to<br>peak 45° velocity [DIN 45 500]) |
| <b>Channel separation:</b>             | 22 dB at 1 kHz                                                                                                                   |
| <b>Channel balance:</b>                | Within 2 dB at 1 kHz                                                                                                             |
| <b>Recommended load<br/>impedance:</b> | 47 kΩ~100 kΩ                                                                                                                     |
| <b>Compliance (dynamic):</b>           | 12×10 <sup>-6</sup> cm/dyne at 100 Hz                                                                                            |
| <b>Stylus pressure range:</b>          | 1.25 ±0.25 g (12.5± 2.5 mN)                                                                                                      |
| <b>Weight:</b>                         | 6 g (cartridge only)                                                                                                             |
| <b>Replacement stylus:</b>             | EPS-27CS                                                                                                                         |
| <b>Phono cable<br/>capacitance:</b>    | 100 pF                                                                                                                           |

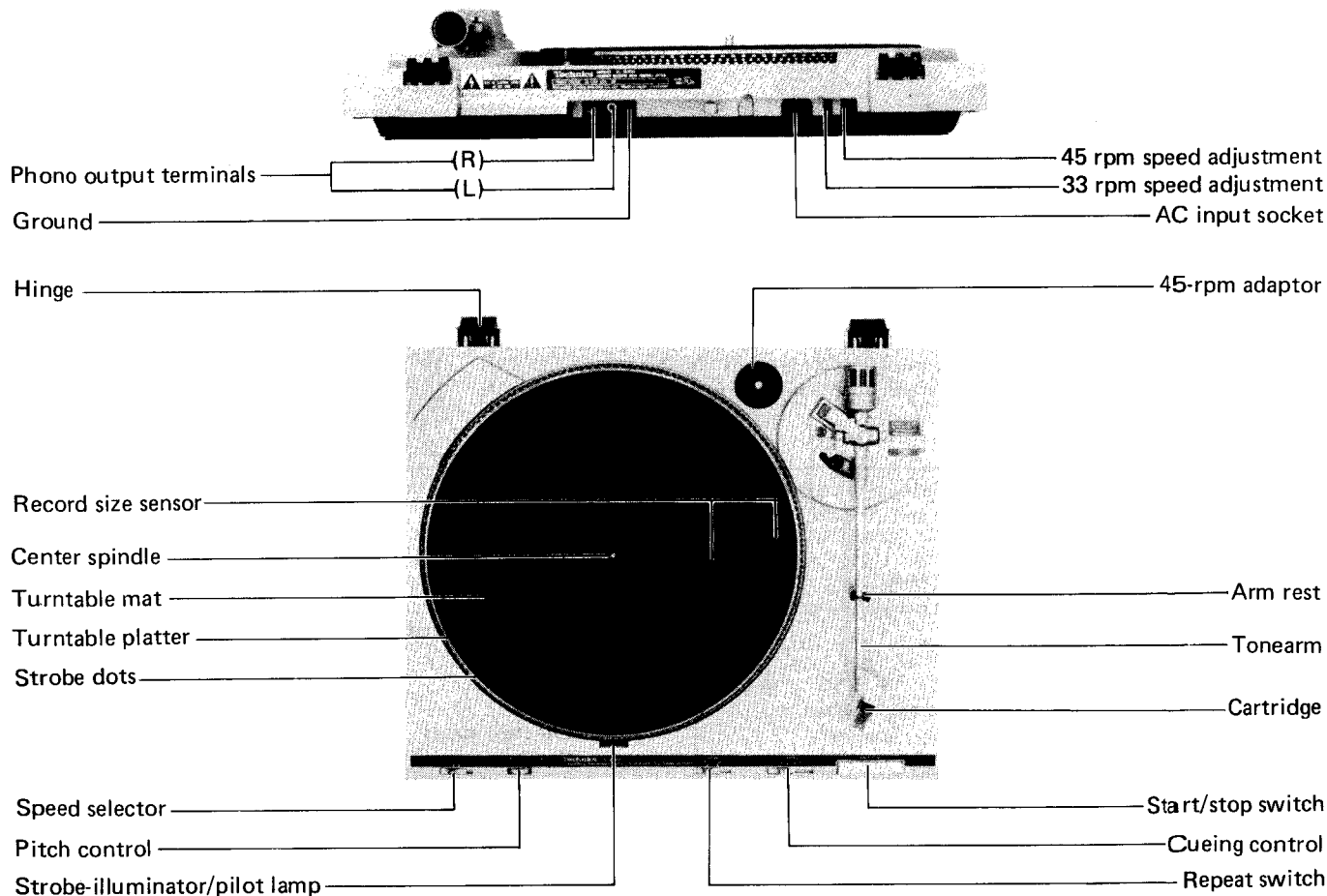
# Technics

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## LOCATION OF CONTROLS



## SAFETY PRECAUTIONS

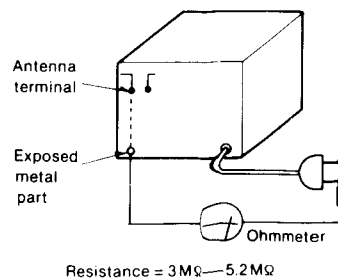
1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

### INSULATION RESISTANCE TEST

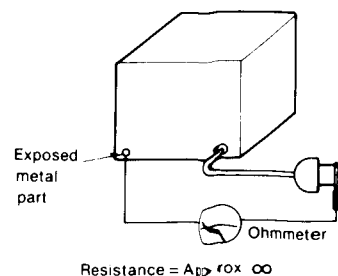
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between  $3M\Omega$  and  $5.2M\Omega$  to all exposed parts. (Fig. 1-1) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. 1-2)

**Note:** Some exposed parts may be isolated from the chassis by design. These will read infinity.

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.



(Fig. 1-1)

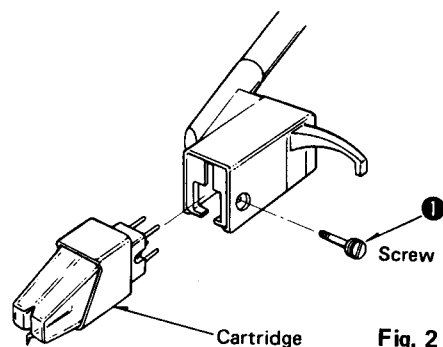


(Fig. 1-2)

## DISASSEMBLY INSTRUCTIONS

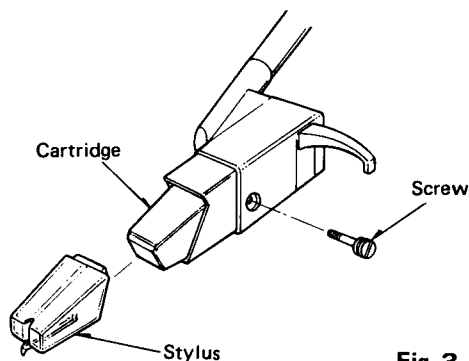
### • How to remove the cartridge (Fig. 2)

1. Fix the tonearm on the arm rest.
2. Remove the cartridge setscrew ①.
3. Pull out the cartridge with care not to let the hand touch the stylus tip.
4. When setting the cartridge, match the cartridge pin with the tonearm connector, and completely insert the cartridge and tighten the setscrew.


**Fig. 2**

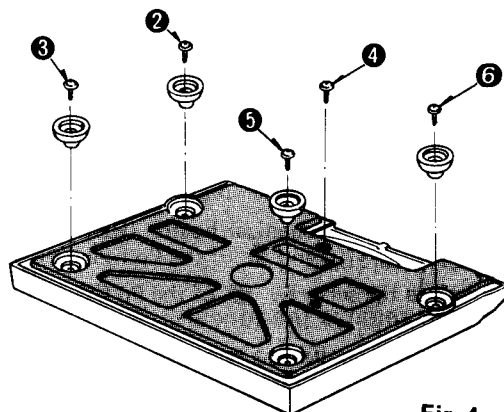
### • How to remove the stylus (Fig. 3)

1. Pull out the stylus with care not to touch the stylus tip.
2. When setting the stylus, match the stylus sleeve with the fitting hole in the cartridge body, and completely insert the stylus and make sure that there is no gap between the stylus knob and main body.


**Fig. 3**

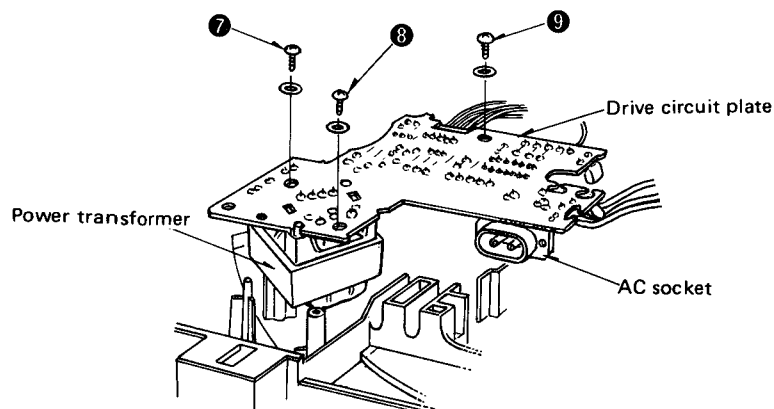
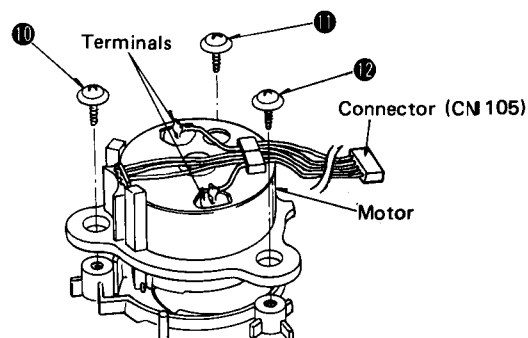
### • How to remove the bottom board (Fig. 4)

1. Fix the tonearm on the arm rest.
2. Remove the turntable mat, belt and turntable platter.
3. Close the dust cover, and turn over the unit with care.
4. Remove the 5 setscrews [ Fig. 4: ② ~ ⑥ ] of the bottom board.


**Fig. 4**

### • How to remove the drive circuit P.C.B. (transformer) and motor

1. Remove the bottom board. (Refer to "How to remove the bottom board".)
2. Remove the 3 setscrews [ Fig. 5 (A) : ⑦ ~ ⑨ ] of the P.C.B., then the drive circuit P.C.B. (transformer) and AC socket can be removed.
3. To remove the transformer from the drive circuit P.C.B., unsolder the 5 transformer terminals and release the claw to remove the transformer from the P.C.B.
4. To remove the motor, remove the 3 setscrews [ Fig. 5 (B) : ⑩ ~ ⑫ ] which secure the main body and motor, and then pull out the connector (CN105) in the P.C.B.


**(A)**

**(B)**
**Fig. 5**

## • How to remove the mechanical plate (Fig. 6)

1. Remove the bottom board. (Refer to "How to remove the bottom board".)
2. Remove the 9 setscrews [ Fig. 6: ⑬ ~ ⑳ ] of the mechanical plate and output terminal shielding plate, and the setscrew ㉒ of the Ground terminal.
3. When fitting the mechanical plate, do the following beforehand.
  - (1) Turn the turntable shaft to rotate the main gear until it comes to the no-gear part. (Fig. 7)
  - (2) Shift the cueing lever of the mechanical plate to the "cueing up" position. (Fig. 8)

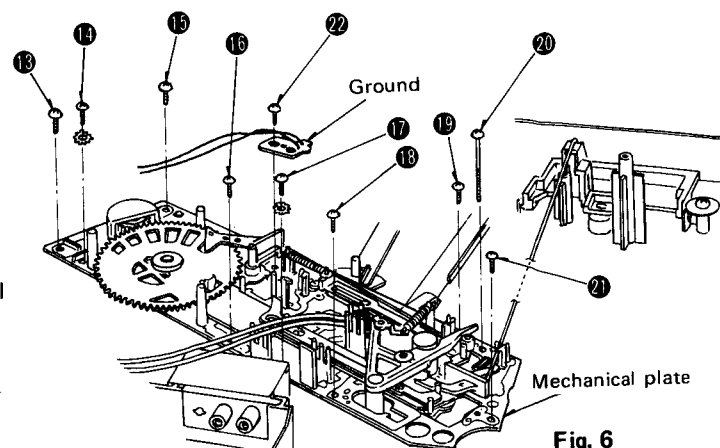


Fig. 6

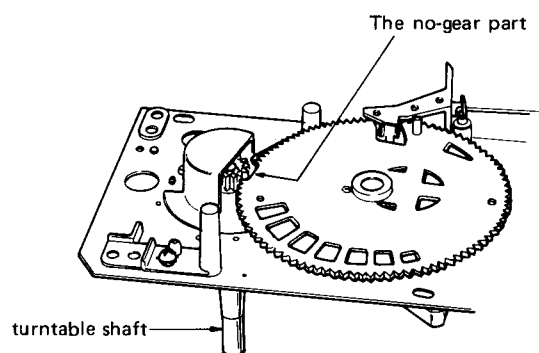


Fig. 7

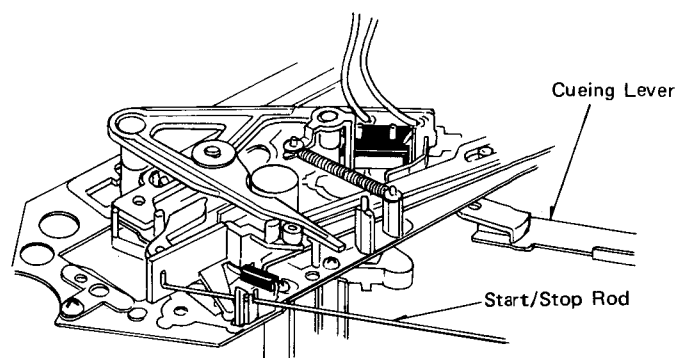


Fig. 8

## • How to remove the Pu fixing plate (Fig. 9)

1. Remove the bottom board. (Refer to "How to remove the bottom board".)
2. Remove the mechanical plate. (Refer to "How to remove the mechanical plate".)
3. Remove the setscrew ㉓ of the Pu fixing plate.

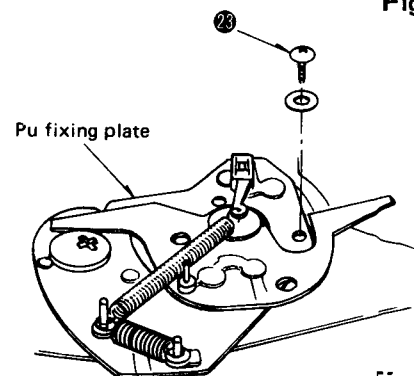


Fig. 9

## • How to remove the tonearm (Fig. 10)

1. Remove the Pu fixing plate. (Refer to "How to remove the Pu fixing plate".)
2. Unsolder the 5 Pu leads of output terminal.
3. Remove the 2 setscrews [ Fig. 10: ㉔ ~ ㉕ ] of the lift plate.

Pu lead wiring method

|       |                   |
|-------|-------------------|
| White | L CH (+) terminal |
| Blue  | L CH (-) terminal |
| Red   | R CH (+) terminal |
| Green | R CH (-) terminal |
| Black | Ground terminal   |

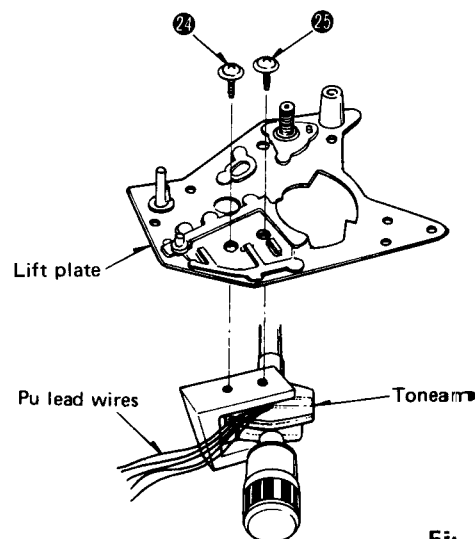


Fig. 10

## Fully Automatic Turntable System

## SL-B300

This booklet contains the specifications and adjusting procedures for SL-B300 written in Germany, French and Spanish. File this manual together with the SL-B300 service manual (Order No. SD83042468C8).

- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the circuit diagram and the replacement parts list.
  - ★ 220V (50/60 Hz) for Continental Europe.
  - ★ 240V (50/60 Hz) for United Kingdom and Australia.
  - ★ 110V-120V/220V-240V (50/60 Hz) for other areas. [XA] for other areas is provided with voltage selector.

## DEUTSCH

## TECHNISCHE DATEN

Änderungen der technischen Daten vorbehalten.

Die angegebenen Gewichts- und Abmessungsdaten sind ungefähre Werte.

## ■ Allgemeine Daten

|                                         |                                                                                                                                |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Stromversorgung:</b>                 | 220V, 50/60 Hz<br>Wechselstrom                                                                                                 |
| <b>Leistungsaufnahme:</b>               | 3 W                                                                                                                            |
| <b>Abmessungen<br/>(B×H×T):</b>         | 43 × 10 × 37,5 cm<br>Maximale Höhe bei geöffnetem<br>Oberteil (Staubabdeckung).<br>43 × 37 × 41 cm                             |
| <b>Gewicht:</b>                         | 3,5 kg                                                                                                                         |
| <b>■ Plattenspieler</b>                 |                                                                                                                                |
| <b>Typ:</b>                             | Automatischer Plattenspieler<br>Startautomatik<br>Rückführautomatik<br>Stopautomatik<br>Wiederhol-Betrieb<br>Manueller Betrieb |
| <b>Antrieb:</b>                         | Riemenantrieb                                                                                                                  |
| <b>Motor:</b>                           | Gleichstrommotor                                                                                                               |
| <b>Antriebsregel-Methode:</b>           | Frequency generator-Servo-Steuerung                                                                                            |
| <b>Plattenteller:</b>                   | Aluminium-Spritzguß<br>Durchmesser 30,4 cm                                                                                     |
| <b>Plattenteller-<br/>Drehzahlen:</b>   | 33-1/3 und 45 U/min                                                                                                            |
| <b>Gleichlaufschwankungen:</b>          | 0,045% WRMS (JIS C5521)<br>±0,06% Spitze (IEC 98A bewertet)                                                                    |
| <b>Rumpel-Geräuschspannungsabstand:</b> | -70 dB (IEC 98A bewertet)                                                                                                      |

## ■ Tonarm

|             |                                                                                   |
|-------------|-----------------------------------------------------------------------------------|
| <b>Typ:</b> | Statisch balancierter,<br>gerader Tonarm<br>Tonabnehmersystem<br>vom Einsteck-Typ |
|-------------|-----------------------------------------------------------------------------------|

|                                                           |                                                                                                      |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Effektive Länge:</b>                                   | 230 mm                                                                                               |
| <b>Überhang:</b>                                          | 15 mm                                                                                                |
| <b>Spurfehlwinkel:</b>                                    | 2°32' bei der Einlaufrille einer<br>30 cm-Platte<br>0°32' bei der Auslaufrille einer<br>30 cm-Platte |
| <b>Effektive Masse:</b>                                   | 7,5 g (ohne Tonabnehmer)                                                                             |
| <b>Auflagekraft-<br/>Einstellbereich:</b>                 | 1,25 g                                                                                               |
| <b>Zulässiger Ton-<br/>abnehmer-<br/>Gewichtsbereich:</b> | 6 g                                                                                                  |

## ■ Tonabnehmer

|                                           |                                                                                                                       |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Typ:</b>                               | Stereo-Magnet-Tonabnehmer mit<br>Einpunkt-Aufhängungssystem                                                           |
| <b>Magnetkreis:</b>                       | Ganzlamellenkern                                                                                                      |
| <b>Frequenzgang:</b>                      | 10 Hz bis 35 kHz<br>20 Hz bis 10 kHz ±1 dB                                                                            |
| <b>Ausgangsspannung:</b>                  | 2,5 mV bei 1 kHz<br>5 cm/s. Null-zu-Spitze, lateral<br>[7 mV bei 1 kHz 10 cm/s. Null-<br>zu-Spitze, 45° (DIN 45 500)] |
| <b>Kanaltrennung:</b>                     | 22 dB bei 1 kHz                                                                                                       |
| <b>Kanalabweichung:</b>                   | Innerhalb 2 dB bei 1 kHz                                                                                              |
| <b>Empfohlene<br/>Endimpedanz:</b>        | 47 kΩ~100 kΩ                                                                                                          |
| <b>Nachgiebigkeit<br/>(dynamisch):</b>    | 12 × 10 <sup>-6</sup> cm/dyn bei 100 Hz                                                                               |
| <b>Auflagekraft-<br/>Einstellbereich:</b> | 1,25 ±0,25 g (12,5 ±2,5 mN)                                                                                           |
| <b>Gewicht:</b>                           | 6 g (nur Tonabnehmer)                                                                                                 |
| <b>Ersatznadel:</b>                       | EPS-27CS                                                                                                              |

## ■ MESSUNGEN UND JUSTIERUNGEN

## • Justierung der Tonarmlifthöhe

Die Tonarmlifthöhe, d.h. der Abstand zwischen Nadelspitze und Schallplattenoberfläche bei Liftsteuerungs-Position "V", wurde werkseitig auf ca. 4–6 mm eingestellt. (Abb. 13)

Falls der Abstand zu groß oder zu klein ist, drehen Sie die Justierschraube im Uhrzeigersinn oder entgegen dem Uhrzeigersinn. (Abb. 14)

## Drehung im Uhrzeigersinn

—Der Abstand zwischen der Platte und der Nadelspitze wird kleiner.

## Drehung entgegen dem Uhrzeigersinn

—Der Abstand zwischen der Platte und der Nadelspitze wird größer.

## • Justierung des Aufsetzpunktes der Automatik (Abb. 15)

## Anmerkung:

Die Justierschrauben für den Aufsetzpunkt und den Abschaltpunkt der Automatik sind zusammen angeordnet.

Wenn der Tonarm sich auf oder in der Nähe der Tonarmablage befindet, ist die Aufsetzpunkt-Justierschraube sichtbar (Abb. 15); wenn der Tonarm sich in der Nähe der Plattenmitte befindet, ist die Abschaltpunkt-Justierschraube sichtbar. (Abb. 16)

Falls die Abtastnadel nicht in der Einlaufrille aufsetzt, ist wie folgt zu justieren:

1. Den Tonarm auf der Tonarmablage mit der Arretierklammer befestigen.
2. Die Gummikappe abnehmen. (Abb. 15)
3. Die Schraube mit einem Schraubenzieher im Uhrzeigersinn oder entgegen dem Uhrzeigersinn drehen, wie erforderlich.

Wenn die Abtastnadel zu weit innen aufsetzt, —entgegen dem Uhrzeigersinn drehen.

Wenn die Abtastnadel außerhalb der Platte aufsetzt, —im Uhrzeigersinn drehen.

So justieren, daß die Abtastnadel 1–2mm vom Außenrand entfernt auf die Platte aufsetzt.

### ● Justierung des Abschaltpunktes der Automatik (Abb. 16)

(Die Gummikappe abnehmen)

1. Setzen Sie zuerst den Nadelschutz auf.
2. Führen Sie den Tonarm gegen die Plattenmitte. Die Justierschraube für den Abschaltpunkt der Automatik wird dann sichtbar.

Falls der Tonarm zu früh zurückkehrt.

— Entgegen dem Uhrzeigersinn drehen.

Falls der Tonarm nach Erreichen der Auslaufrille nicht zurückkehrt.

— Im Uhrzeigersinn drehen.

### ● Justierung der Drehzahl

1. Stellen den Drehzahl-Wahlschalter auf die "45" — Position.
2. Drehen VR102 mit einem Schraubenzieher in der Hinterseite des Gerätes, bis die Neundrehzahl (45 U/min) gleichermaßen mit einem Stroboskop bestätigt ist. (Abb. 17)
3. Stellen den Drehzahl-Wahlschalter auf die "33" — position.
4. Drehen VR 101 mit einem Schraubenzieher in der Hinterseite des Gerätes, bis die Neundrehzahl (33—1/3 U/min) unter gleichzeitiger Beobachtung mit Stroboskop bestätigt ist. (Abb. 17)

## FRANÇAIS

### CARACTERISTIQUES

Les spécifications sont susceptibles d'être modifiées sans préavis.  
Le poids et les dimensions donnés sont approximatifs.

#### ■ Généralités

|                               |                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Alimentation:</b>          | Alternatif 110—120/220—240 V,<br>50 ou 60 Hz                                                                             |
| <b>Consommation:</b>          | 3 W                                                                                                                      |
| <b>Dimensions:</b><br>(L×H×P) | 43 × 10 × 37,5 cm<br>Hauteur maximum lorsque<br>le dessus (couvercle<br>protège-poussière) est ouvert<br>43 × 37 × 41 cm |
| <b>Poids:</b>                 | 3,5 kg                                                                                                                   |

#### ■ Platine de lecture

|              |                                                                                                                                             |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type:</b> | Platine automatique<br>Démarrage automatique<br>Retour automatique<br>Arrêt automatique<br>Audition répétée<br>Audition à commande manuelle |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------|

#### **Système d'entraînement:**

Entraînement par courroie

#### **Moteur:**

Moteur C.C.

#### **Groupe de réglage:**

Servocommande du générateur de fréquences

#### **Plateau de lecture:**

En aluminium moulé sous pression

Diamètre 30,4 cm

#### **Vitesses de rotation:**

33-1/3 et 45 t/p.m.

#### **Pleurage et scintillement:**

0,045% de valeur efficace  
(JIS C5521)  
±0,06% de crête  
(IEC 98A Pondéré)

#### **Ronflement:**

–70 dB (IEC 98A Pondéré)

#### ■ Bras de lecture

|              |                                                      |
|--------------|------------------------------------------------------|
| <b>Type:</b> | Bras de lecture rectiligne<br>statiquement équilibré |
|--------------|------------------------------------------------------|

|                                 |                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Longueur effective:</b>      | 230 mm                                                                                                                       |
| <b>Porte-à-faux:</b>            | 15 mm                                                                                                                        |
| <b>Angle d'erreur de piste:</b> | En deçà de 2°32' au sillon<br>extérieur d'un disque de 30 cm<br>En deçà de 0°32' au sillon<br>intérieur d'un disque de 30 cm |

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Masse réelle:</b> | 13,5 g (y compris la cellule pick-up) |
|----------------------|---------------------------------------|

|                                                 |        |
|-------------------------------------------------|--------|
| <b>Plage de réglage de la pression d'appui:</b> | 1,25 g |
|-------------------------------------------------|--------|

|                                                         |     |
|---------------------------------------------------------|-----|
| <b>Gamme du poids des cellules pick-up utilisables:</b> | 6 g |
|---------------------------------------------------------|-----|

#### ■ Cellule pick-up

|              |                                        |
|--------------|----------------------------------------|
| <b>Type:</b> | Cellule pick-up stéréo à aimant mobile |
|--------------|----------------------------------------|

**Circuit magnétique:** Noyau entièrement feuilleté

**Réponse en fréquence:** 10 Hz à 35 kHz

20 Hz à 10 kHz ±1 dB

**Tension de sortie:** 2,5 mV à 1 kHz; 5 cm/s, zéro à vitesse latérale de crête  
(7 mV à 1 kHz 10 cm/s, zéro à vitesse 45° de crête [DIN 45 500])

**Séparation des canaux:** 22 dB à 1 kHz

**Équilibrage des canaux:** En deçà de 2 dB à 1 kHz

**Impédance de charge**

**recommandée:** 47 kΩ~100 kΩ

**Elasticité (dynamique):** 12 × 10<sup>-6</sup> cm/dyne à 10 Hz

**Plage de la force**

**verticale d'appui:** 1,25 ±0,25 g (12,5 ±2,5 mN)

**Poids:**

6 g (cellule seule)

**Pointe de lecture de remplacement:** EPS-27CS

## MESURAGES ET RÉGLAGES

### ● Mise au point de la hauteur de l'élévateur du bras

La hauteur de l'élévateur du bras (distance entre l'extrémité de la pointe de lecture et la surface du disque, lorsque la commande de pose et de relevage est à la position "V") a été réglée en usine sur approximativement 4 à 6 mm. (Fig. 13)

Si l'écartement est trop étroit ou trop large, tourner la vis de réglage dans le sens des aiguilles d'une montre ou dans le sens contraire. (Fig. 14)

**Rotation dans le sens des aiguilles d'une montre.**

— La distance entre la surface du disque et l'extrémité de la pointe de lecture diminue.

**Rotation dans le sens contraire des aiguilles d'une montre.**

— La distance entre la surface du disque et l'extrémité de la pointe de lecture augmente.

### ● Mise au point de la position de démarrage automatique (Fig. 15)

#### Nota:

Les vis de réglage du démarrage automatique et du retour automatiques sont disposées ensemble.

Lorsque le bras de lecture est sur ou près de l'accodoir du bras, la vis de réglage de démarrage automatique est visible (Fig. 15); lorsque le bras de lecture est près du centre d'un disque, la vis de réglage du retour automatique est visible. (Fig. 16)

Si la pointe de lecture ne repose pas dans le sillon d'entrée, ajuster de la manière suivante.

1. Bolquer le bras de lecture sur le support de bras.
2. Retirer le capuchon en caoutchouc. (Fig. 15)
3. Avec un tournevis, tourner la vis de réglage dans le sens des aiguilles d'une montre ou dans le sens inverse selon la nécessité.

Si la tête de la pointe de lecture se dépose trop loin du sillon enregistré,

—tourner dans le sens contraire des aiguilles d'une montre.

Si la tête de la pointe de lecture se dépose en dehors du disque,

—tourner dans le sens des aiguilles d'une montre.

Ajuster de façon à ce que l'extrémité de la pointe de lecture atterrisse à 1–2mm à partir du bord du disque.

### ● Mise au point de la position de retour automatique (Fig. 16)

(Retirer le capuchon en caoutchouc.)

1. Placer le capot protecteur de la pointe de lecture sur la cellule pick-up.
2. Déplacer le bras de lecture vers le centre du disque. Alors, la vis de réglage du retour automatique apparaîtra.

Si le bras de lecture tend à revenir vers le support du bras avant que l'audition ne soit terminée.

—tourner dans le sens contraire des aiguilles d'une montre.

Si le bras de lecture ne peut revenir en arrière après le dernier sillon.

—tourner dans le sens des aiguilles d'une montre.

### ● Réglage de la vitesse rotationnelle

1. Régler le commutateur s'electeur de vitesse sur la position "45".
2. Ajuster VR102 avec un tournevis jusqu'à ce que la vitesse nominale de rotation (45 t/p.m.) soit obtenue tout en la vérifiant par l'intermédiaire du stroboscope. (Fig. 17)
3. Régler le commutateur sélecteur de vitesse sur la position "33".
4. Ajuster VR101 avec un tournevis à partir de l'arrière de l'appareil jusqu'à ce que la vitesse nominale de rotation (33 t/p.m.) soit obtenue tout en la vérifiant par l'intermédiaire du stroboscope. (Fig. 17)

## ESPAÑOL

## ESPECIFICACIONES

Las especificaciones quedan sujetas a cambios sin aviso previo.  
El peso y las dimensiones indicados son aproximados.

### ■ En general

#### Alimentación de

corriente: ~110—120/220—240V, 50 ó 60 Hz

Consumo de corriente: 3 W

Dimensiones: 43 × 10 × 37,5 cm

(Ancho×Alto×Prof.)

Altura máxima cuando la parte de arriba (tapa contra el polvo) está abierta.

43 × 37 × 41 cm

Peso: 3,5 kg

### ■ Sección del plato giratorio

Tipo: Plato giratorio automático  
Arranque automático  
Retorno automático  
Parada automática  
Ejecución repetida  
Ejecución manual

Método de accionamiento:

Accionamiento por correa  
Motor de corriente continua

Motor:

Método de control de accionamiento:

Servocontrol por generador de frecuencias

Platillo del plato giratorio:

Aluminio fundido  
Diámetro 30,4 cm

Velocidades del plato giratorio:

33-1/3 y 45 rpm

Ululaciones y trémolo:

0,045% WRMS (JIS C5521)  
±0,06% cresta  
(IEC 98A Ponderado)

Ruido de rodadura:

—70 dB (IEC 98A Ponderado)

### ■ Sección del brazo sonoro

Tipo: Brazo sonoro recto  
equilibrado estáticamente

|                                                   |                                                            |                                         |                                                                          |
|---------------------------------------------------|------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------|
| <b>Longitud efectiva:</b>                         | Sistema de cartucho con conector enchufable                | <b>Respuesta de frecuencia:</b>         | 10 Hz a 35 kHz                                                           |
| <b>Proyección:</b>                                | 230 mm                                                     |                                         | 20 Hz a 10 kHz $\pm 1$ dB                                                |
| <b>Angulo de error de seguimiento:</b>            | 15 mm                                                      | <b>Voltaje de salida:</b>               | 2,5 mV a 1 kHz                                                           |
|                                                   | Inferior a 2°32' en el surco exterior de un disco de 30 cm |                                         | Con velocidad lateral de cero a cresta de 5 cm/s                         |
|                                                   | Inferior a 0°32' en el surco interior de un disco de 30 cm |                                         | [7 mV a 1 kHz Velocidad de 45° de cero a cresta de 10 cm/s (DIN 45 500)] |
| <b>Masa efectiva:</b>                             | 13,5 g (incluyendo el cartucho)                            | <b>Separación de canales:</b>           | 22 dB a 1 kHz                                                            |
| <b>Radio de ajuste de la presión de la aguja:</b> | 1,25 g                                                     | <b>Equilibrio de canales:</b>           | Sin exceder 2 dB a 1 kHz                                                 |
| <b>Radio de peso de cartucho utilizable:</b>      | 6 g                                                        | <b>Impedancia de carga recomendada:</b> | 47 k $\Omega$ a 100 k $\Omega$                                           |
| <b>■ Sección del cartucho</b>                     |                                                            | <b>Elasticidad (dinámica):</b>          | 12 $\times 10^{-6}$ cm/dina a 100 Hz                                     |
| <b>Tipo:</b>                                      | Cartucho estereofónico de imán móvil                       | <b>Radio de presión de la aguja:</b>    | 1,25 $\pm 0,25$ g (12,5 $\pm 2,5$ mN)                                    |
| <b>Circuito magnético:</b>                        | Núcleo totalmente laminado                                 | <b>Peso:</b>                            | 6 g (cartucho sólo)                                                      |
|                                                   |                                                            | <b>Aguja de recambio:</b>               | EPS-27CS                                                                 |

## ■ MEDICIONES Y AJUSTE

### ● Ajuste de la altura de elevación del brazo

La altura de elevación del brazo (o sea, la distancia entre la punta de la aguja y la superficie del disco cuando el control de colocación está en la posición "▼") ha sido regulada en la fábrica aproximadamente entre 4 y 6 mm. (Fig. 13)

En caso que la distancia fuese demasiado abundante o demasiado escasa, girar el tornillo de ajuste hacia la derecha o hacia la izquierda (Fig. 14)

#### Rotación hacia la derecha

— reduce la distancia entre el disco y la punta de la aguja.

#### Rotación hacia la izquierda

— aumenta la distancia entre el disco y la punta de la aguja.

### ● Ajuste de la posición para el arranque automático (Fig. 15)

#### Nota:

Los respectivos tornillos de ajuste para arranque y retorno automáticos se encuentran juntos.

Cuando el brazo sonoro está puesto sobre el apoyo o cerca de éste, se dejará ver el tornillo de ajuste del arranque automático (Fig. 15); estando cerca del centro del disco, se dejará ver el de ajuste del retorno automático. (Fig. 16)

En caso que la aguja no se depositara en el surco de comienzo, regular de la manera que sigue.

1. Sujetar el brazo sonoro al apoyo del mismo con la grapa.
2. Quitar la tapita de goma. (Fig. 16)
3. Girar el tornillito de ajuste hacia la derecha o hacia la izquierda usando un destornillador, según sea necesario.

En caso que la punta de la aguja se deposita muy dentro del surco grabado:

—Girar hacia la izquierda.

En caso que la punta de la aguja se deposita fuera del disco:

—Girar hacia la derecha.

Regular de manera tal que la punta de la aguja se deposite a uno o dos milímetros del borde del disco.

### ● Ajuste de la posición para retorno automático (Fig. 15)

(Quitar la tapita de goma.)

1. Colocar la protección de la aguja en el cartucho.
2. Mover el brazo sonoro hacia el centro del disco.

Con ello, aparecerá el tornillo de ajuste del retorno automático.

Cuando el brazo sonoro tienda a volver a su apoyo antes de terminar la ejecución:

— Girar hacia la izquierda.

En caso que el brazo sonoro no vuelva después de haber tocado el último surco del disco:

Girar hacia la derecha.

### ● Ajuste de velocidad rotacional

1. Poner el selector de velocidad en la posición "45".
2. Girar el VR102 con un destornillador por detrás del aparato hasta la rotación nominal (45 r.p.m.) y verificar la rotación con un estroboscopio mientras se ajuste la velocidad. (Fig. 17)
3. Poner el selector de velocidad en la posición "33".
4. Girar el VR101 con un destornillador por detrás del aparato hasta la rotación nominal (33-1/3) y verificar la rotación con un estroboscopio mientras se ajuste la velocidad. (Fig. 17)

● How to remove the lift plate (Fig. 11)

1. Remove the Pu fixing plate. (Refer to "How to remove the Pu fixing plate".)
2. Remove the 3 setscrews [ Fig. 11: ②⑥ ~ ②⑧ ] of the lift plate.

● How to remove the arm lift

1. Remove the Pu fixing plate. (Refer to "How to remove the Pu fixing plate".)
2. Remove the lift plate (Refer to "How to remove the lift plate".)
3. Remove the setscrew [ Fig. 12: ②⑨ ] of the arm lift cover.
4. Remove the washer [ Fig. 12: ③① ] from the arm lift rod.
5. Pull out the arm lift rod in the direction of the arrow.

Caution:

★ Be sure to adjust the arm lift height. (Refer to page 5 Fig. 13.)

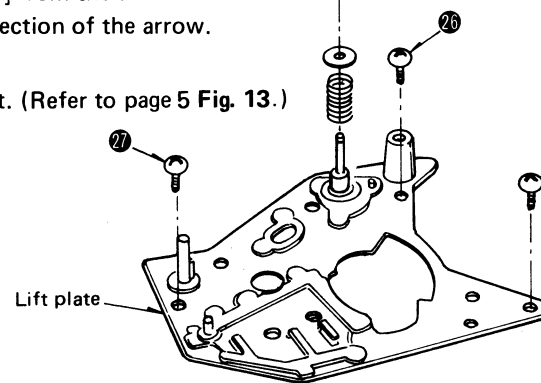


Fig. 11

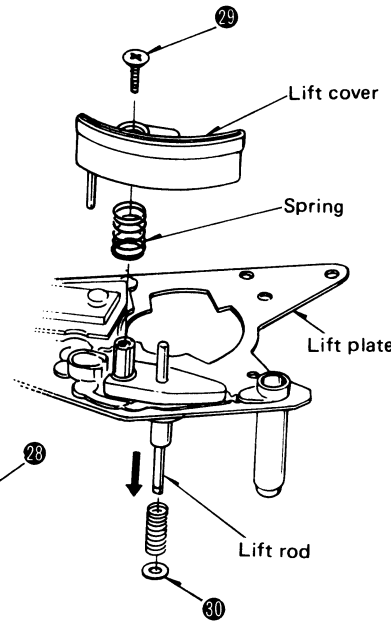


Fig. 12

■ MEASUREMENTS AND ADJUSTMENTS

● Arm-lift height adjustment

The arm-lift height (distance between the stylus tip and the record surface when the cueing control is at the "V" position) has been adjusted at the factory to approximately 4 to 6 mm (5/32" ~ 1/4"). (Fig. 13)

If the clearance is too narrow or too wide, turn the adjustment screw clockwise or counterclockwise. (Fig. 14)

Clockwise rotation

—distance between the record and stylus tip is decreased.

Counterclockwise rotation

—distance between the record and stylus tip is increased.

● Adjustment of automatic start position (Fig. 15)

Note:

The auto-start and auto-return adjustment screws are located together.

When the tonearm is in or near the arm rest, the auto-start adjustment screw is visible (Fig. 15); when the tonearm is near the center of a record, the auto-return adjustment screw is visible. (Fig. 16)

If the stylus does not land in the lead-in groove, adjust as follows

1. Clamp the tonearm to the arm rest.
2. Remove the rubber cap. (Fig. 15)
3. Turn the screw with a screwdriver, clockwise or counterclockwise as necessary.

If the stylus tip sets down too far in the recorded groove,

—turn counterclockwise.

If the stylus tip sets down outside of the record,

—turn clockwise.

Adjust so the stylus tip lands 1~2 mm in from the edge of the record.

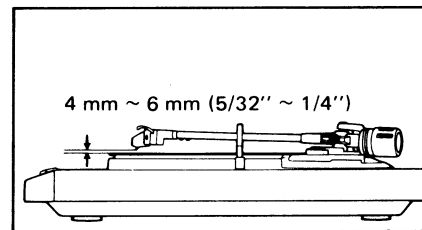


Fig. 13

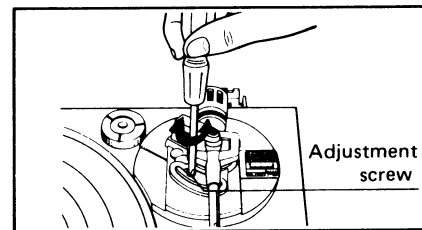


Fig. 14

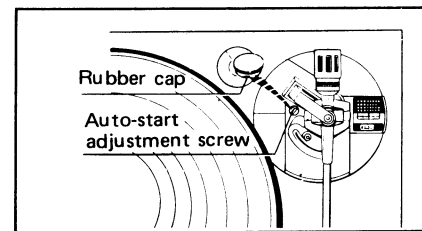


Fig. 15

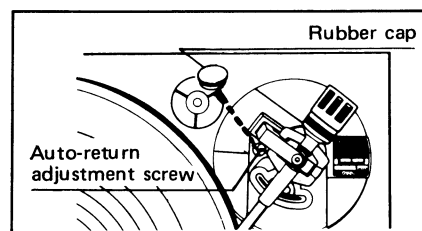


Fig. 16

● Adjustment of automatic return position (Fig. 16)

(Remove the rubber cap.)

1. Put the stylus protector on the cartridge.
2. Move the tonearm toward the center of the record.

The auto-return adjustment screw will appear.

If the tonearm tends to return to the arm rest before the play has finished, —turn counterclockwise.

If the tonearm fails to return after the final groove, —turn clockwise.

● Adjustment of rotational speed

1. Set the speed selector switch to the "45" position.
2. Turn the VR102 with a screw driver from the back of the set to the rated rotation (45 rpm) and check the rotation with a strobe while adjusting the speed. (Fig. 17)
3. Set the speed selector switch to the "33" position.
4. Turn the VR101 with a screwdriver from the back of the set to the rated rotation (33-1/3 rpm) and check the rotation with a strobe while adjusting the speed. (Fig. 17)

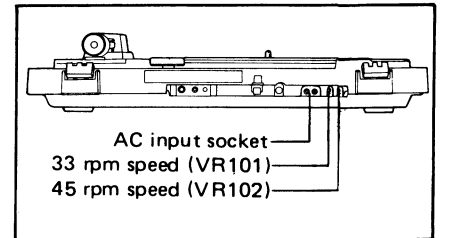


Fig. 17

■ REPLACEMENT PARTS LIST

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.  
2. Important safety notice:  
Components identified by Δ mark have special characteristics important for safety.  
When replacing any of these components, use only manufacturer's specified parts.

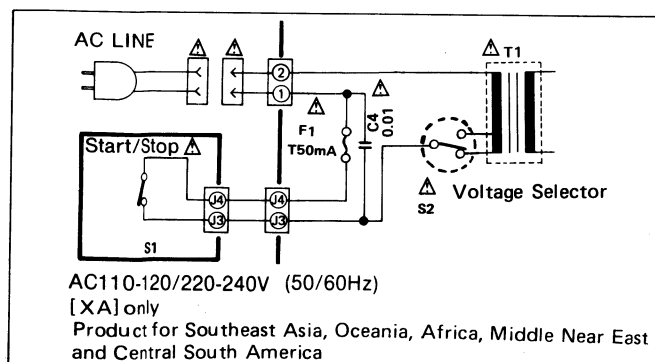
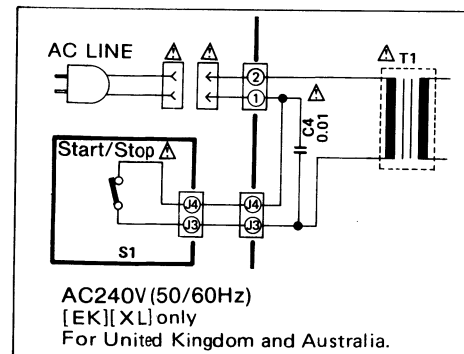
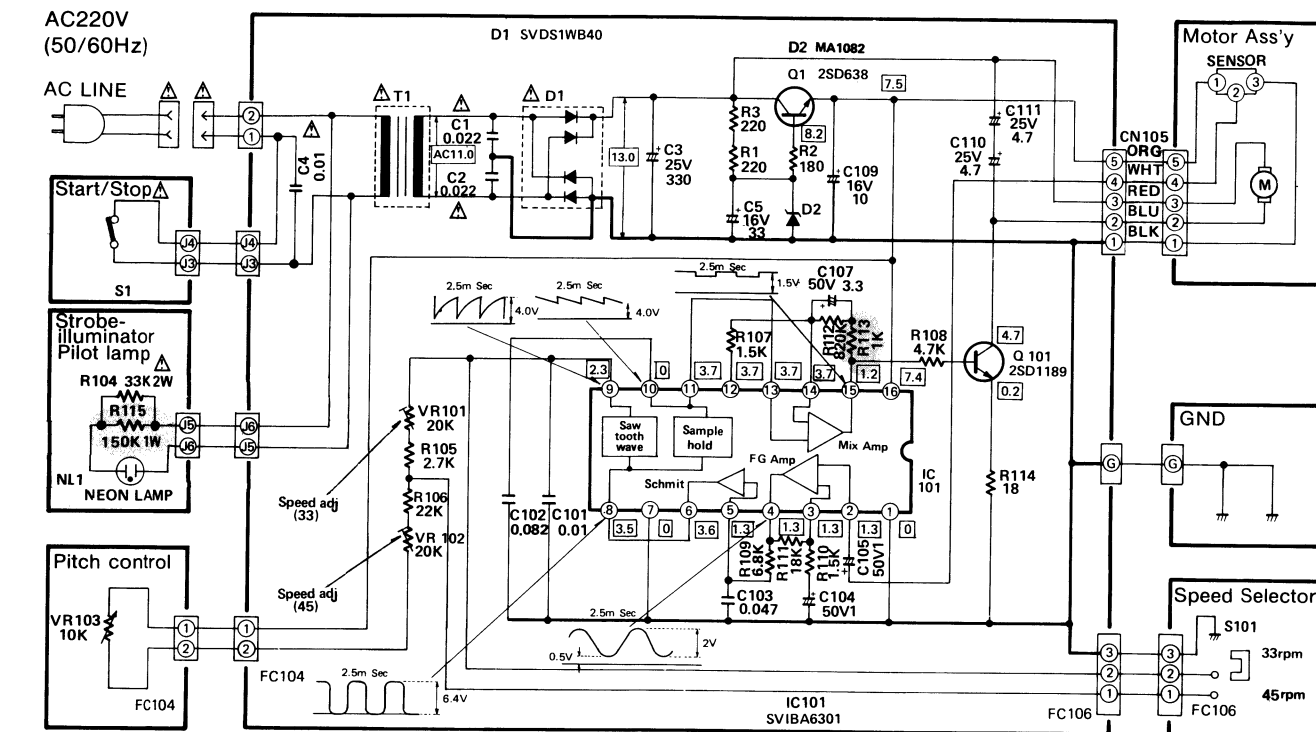
3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.  
4. The "S" mark is service standard parts and may differ from production parts.  
5. The parenthesized number in the column of description stand for the quantity per set.

| Ref. No.               | Part No.                     | Description               | Ref. No.                  | Part No.                         | Description                      | Ref. No.                   | Part No.                    | Description             |
|------------------------|------------------------------|---------------------------|---------------------------|----------------------------------|----------------------------------|----------------------------|-----------------------------|-------------------------|
| INTERGRATED CIRCUIT    |                              |                           | RESISTORS                 |                                  |                                  | CABINET and CHASSIS PARTS  |                             |                         |
| IC101                  | SVIBA6301                    | FG Servo                  | R114                      | ERG1ANJ180                       | 18 Ω                             | 15                         | SFQHZ15R01                  | Spring (1)              |
| TRANSISTORS            |                              |                           | R115                      | ERDS1TJ154T                      | 150KΩ                            | 16                         | SFKTZ15R01                  | Knob, Start/Stop (1)    |
| Q1                     | 2SD638                       | Regulator                 | R116                      | ERD25FJ100                       | 10Ω                              | 17                         | SFUPZ15R03                  | Plate, Cueing Lever (1) |
| Q101                   | 2SD1189                      | Switching                 |                           |                                  |                                  | 18                         | SFKTZ15R04                  | Knob, Cueing (1)        |
| DIODES                 |                              |                           | CAPACITORS                |                                  |                                  | 19                         | SFQZ15R02                   | Spring, Cueing Knob (2) |
| D1                     | Δ SVDS1WB40                  | Rectifier                 | C1, 2                     | Ⓢ Δ ECKD1H223PF                  | 0.022μF                          | 19-1                       | SFYB-5-32                   | Ball, Cueing (2)        |
| D2                     | MA1082                       | 8.2V Zener                | C3                        | ECEA1EU331                       | 330μF                            |                            |                             |                         |
| VARIABLE RESISTORS     |                              |                           | C4                        | [EK] [XL] [E] [EC] Δ ECQU2A103MF | 0.01μF                           | 20                         | SFUPZ15R05                  | Plate, Cueing Knob (1)  |
| VR101, 102             | EVN59AA00B24                 | Speed Adjustment 20KΩ (B) | C4                        | [Other Areas] Δ ECQE2A103MZ      | 0.01μF                           | 21                         | SFUPB63M01                  | Plate, Repeat Lever (1) |
| VR103                  | EVLE5AT12B14                 | Pitch Control 10KΩ (B)    |                           |                                  |                                  | C5                         | Ⓢ ECEA1CS330                | 33μF                    |
| SWITCHES               |                              |                           | C101                      | ECQM1H103KV                      | 0.01μF                           | 22                         | SFKTB63M01                  | Knob, Repeat (1)        |
| S1                     | Δ SFDSS5GLP                  | Start/Stop                | C102                      | ECQM1H823JV                      | 0.082μF                          | 25                         | SFUPB63M02                  | Plate, Repeat Knob (1)  |
| S2                     | [XA, XM only] Δ SFDSHXW02066 | Voltage Selector          | C103                      | ECQM1H473KV                      | 0.047μF                          | 26                         | SFUMB62M01                  | Cover, Strobe (1)       |
| S101                   | SFDSSH0739                   | Speed Selector            | C104, 105                 | Ⓢ ECEA5021                       | 1μF                              | 27                         | SFKTB62M01                  | Knob, Pitch Control (1) |
| LAMP                   |                              |                           | C107                      | Ⓢ ECEA50Z3R3                     | 3.3μF                            | 28                         | SFKTZ15R02                  | Speed Selector (1)      |
| NL1                    | Δ SFDNE2HU                   | Strobe                    | C109                      | Ⓢ ECEA1HS100                     | 10μF                             | 29                         | SFMHBL3N01Z                 | Motor Ass'y (1)         |
| FUSE                   |                              |                           | C110, 111                 | Ⓢ ECEA25Z4R7                     | 4.7μF                            | 30                         | SFKKZ15R01                  | Plate, Canseller (1)    |
| F1 [XA] only Δ         | XBAS2C005TIA                 | 50mA 250V                 | CABINET and CHASSIS PARTS |                                  |                                  | 31                         | [Other Areas] Δ SFDJHSC0509 | AC Socket (1)           |
| POWER TRANSFORMER      |                              |                           | 1                         | SFADZ15R01                       | Dust Cover (1)                   | 31                         | [XA] [XM] Δ SFDJHSC0498     | AC Socket (1)           |
| T1 [EK] [XL] Δ         | SLTF6582                     | Power Source              | 2                         | SFGZZ15R01                       | Cushion Rubber, Dust Cover (2)   | 32                         | [EK] [XL] Δ SFGZ15R02       | Holder (1)              |
| T1 [XA] [XM] Δ         | SLTF6546                     | Power Source              | 3                         | SFTGDP3N01                       | Turntable Mat (1)                | TONEARM and ARM BASE PARTS |                             |                         |
| T1 [Other Areas] Δ     | SLT35K64E                    | Power Source              | 4                         | SFTEB63M01A                      | Turntable Platter (1)            | 40                         | SFPAMZ1501A                 | Tonearm Ass'y (1)       |
| RESISTORS              |                              |                           | 5                         | SFUMB33N20A                      | Base, Disc Size Sensor (1)       | 41                         | SFKUB63M01E                 | Arm Rest Ass'y (1)      |
| R1, 3                  | Ⓢ ERD25FJ221                 | 220Ω                      | 5-1                       | SFUMD33-01E                      | Latch, Disc Size Sensor Base (2) | 42                         | SFGK170-01                  | Cap, Rubber (1)         |
| R2                     | Ⓢ ERD25FJ181                 | 180Ω                      | 6                         | SFGB321-1                        | Belt (1)                         | 43                         | SFUMZ15R58                  | Cover, Arm Lift (1)     |
| R104 [XA, XM] Ⓢ        | ERG1ANJ103                   | 10KΩ                      | 7                         | SFGAZ15R01                       | Audio Insulator (Front) (2)      | 44                         | SFQAZ15R52                  | Spring, Lift Arm (1)    |
| R104 [Other Areas] Δ   | ERG2SJ333                    | 33KΩ                      | 7-1                       | SFGABL3N01                       | Audio Insulator (Rear) (2)       | 45                         | SFUPB63M51A                 | Lift Plate Ass'y (1)    |
| R105                   | Ⓢ ERD25FJ272                 | 2.7KΩ                     | 8                         | SFAUZ15R01                       | Bottom Board (1)                 | 46                         | SFUPB63M52A                 | Arm Base Ass'y (1)      |
| R106                   | Ⓢ ERD25FJ223                 | 22KΩ                      | 9                         | SFKKB63M01                       | Plate (1)                        | 47                         | SFQAZ15R51                  | Spring, Lift Plate (1)  |
| R107, 110              | Ⓢ ERD25FJ152                 | 1.5KΩ                     | 10                        | SFACB63M01                       | Cabinet (1)                      | 48                         | SFQHZ15R55                  | Spring, Canseller (1)   |
| R108                   | Ⓢ ERD25FJ472                 | 4.7KΩ                     | 11                        | SFATZ15R01A                      | Hinge (2)                        | 49                         | EPC-P27S                    | * Cartridge (1)         |
| R109                   | Ⓢ ERD25FJ682                 | 6.8KΩ                     | 12                        | [E] [EC] [XL] SFNNB63S01         | Name Plate (1)                   | 50                         | EPS-27CS                    | * Stylus (1)            |
| R111                   | Ⓢ ERD25TJ183                 | 18KΩ                      | 12                        | [XA] [XM] SFNNB63X01             | Name Plate (1)                   | 51                         | SFCNC02301                  | Cover, Stylus (1)       |
| R112                   | Ⓢ ERD25TJ824                 | 820KΩ                     | 12                        | [Other Areas] SFNNB63R01         | Name Plate (1)                   |                            |                             |                         |
| R113 [Except XA, XM] Ⓢ | ERD25FJ102                   | 1KΩ                       | 13                        | SFDJZ15R01E                      | Socket, Phono Output (1)         |                            |                             |                         |
|                        |                              |                           | 14                        | SFUZB63M01                       | Rod, Start, Stop (1)             |                            |                             |                         |

## SCHEMATIC DIAGRAM

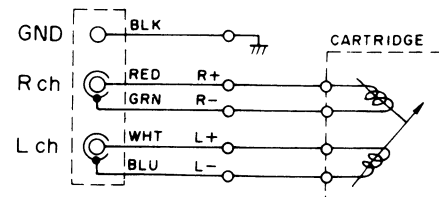
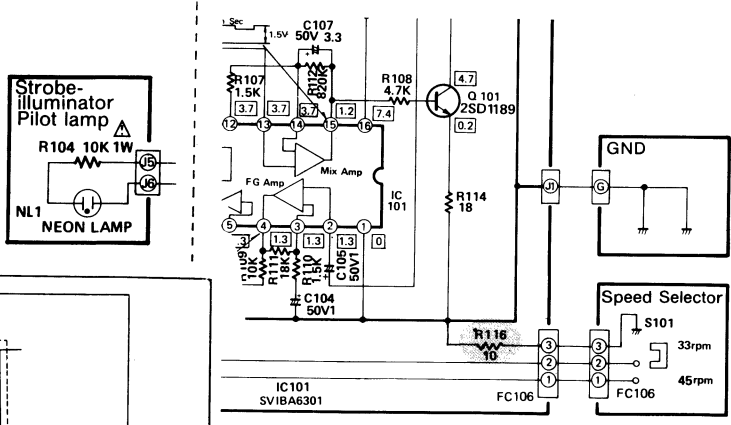
(This schematic diagram may be modified at any time with the development of new technology.)

[For continental Europe]



[XA, XM] Only

R116 is used the place of R113 and R115.



### Notes:

1. S1 : Start/stop switch in "on.. position.
2. S101: Speed selector switch in "33-1/3 rpm" position  
33-1/3 rpm ↔ 45 rpm
3. S2: Voltage selector switch in "AC110-120/220-240V" position
4. The value and waveform in are of the reference voltage for the turntable rotation (33-1/3 rpm) of this unit, measured by DC voltmeter (high impedance) and oscilloscope on the basis of chassis.

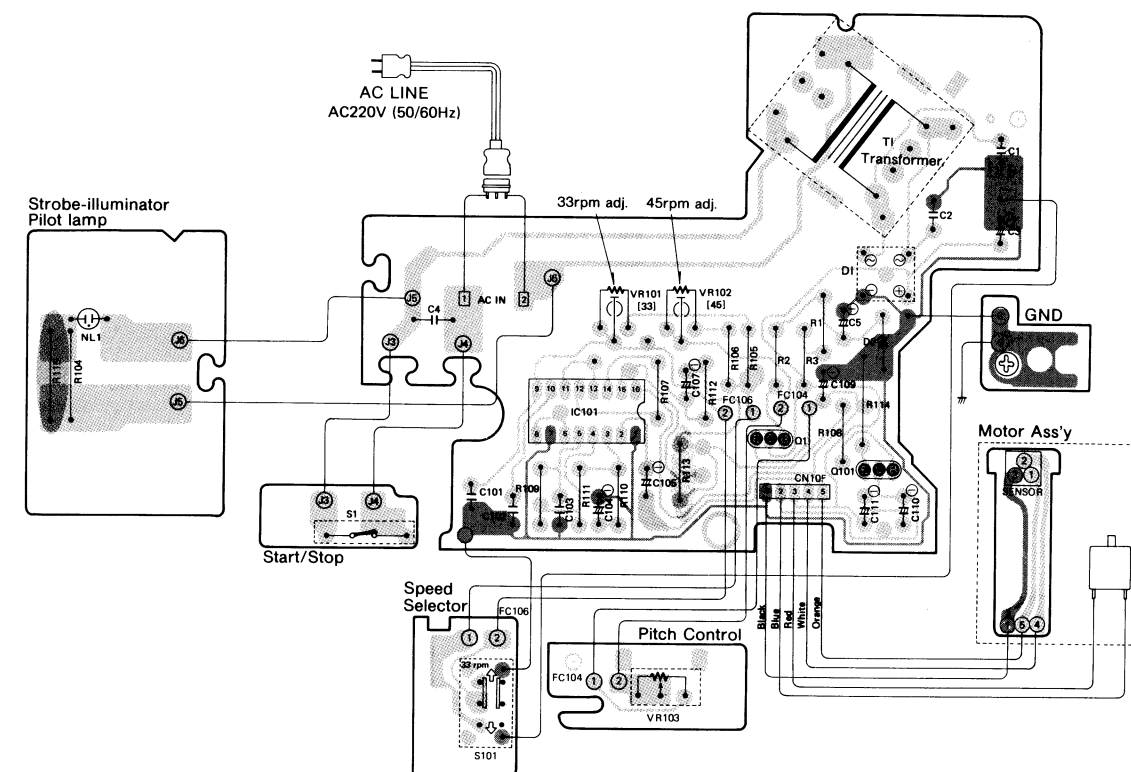
5. Important safety notice:  
Components identified by mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

## CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM

Ground (Earth Lines)

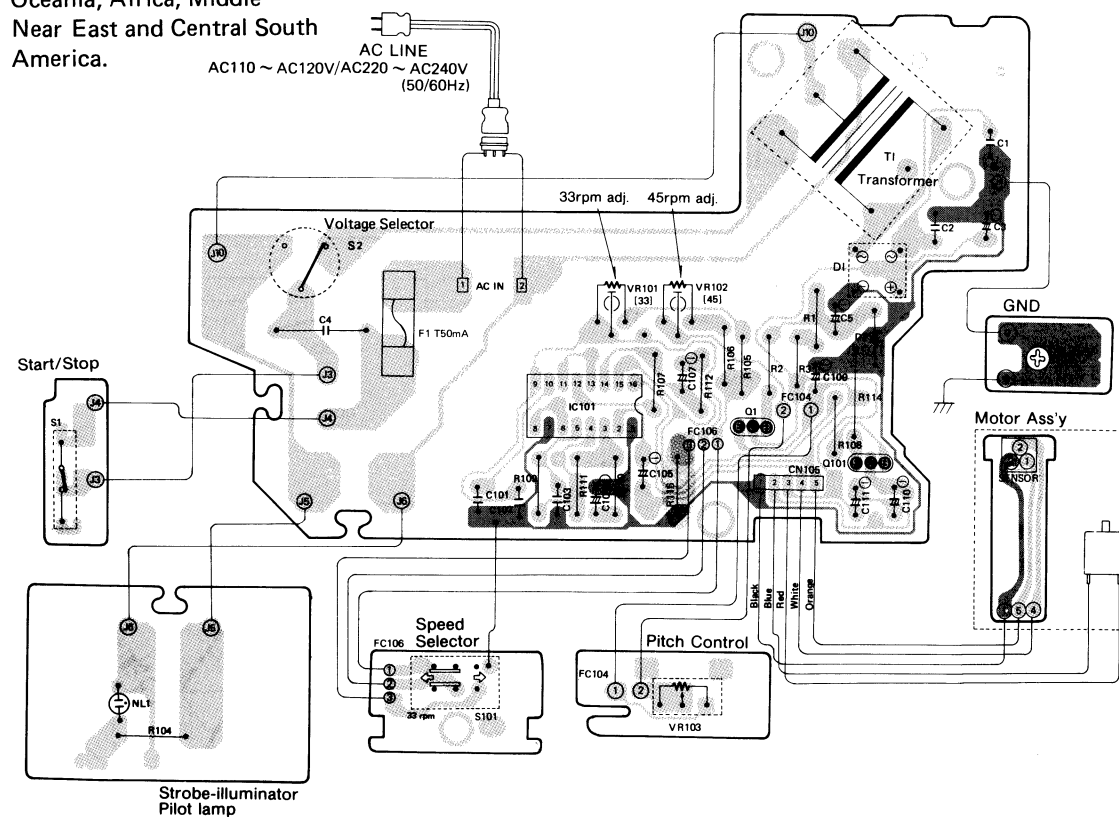
[Other Areas]

For Continental Europe



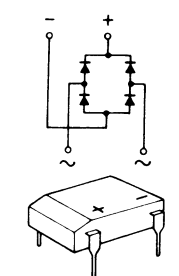
[XA] Only

Product for Southeast Asia, Oceania, Africa, Middle Near East and Central South America.

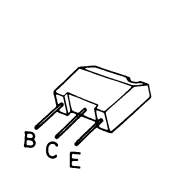


• Terminal guide of IC, transistors and diode

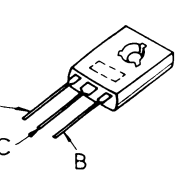
SVDS1WB40



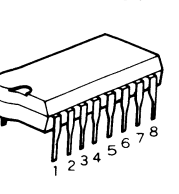
2SD638



2SD1189

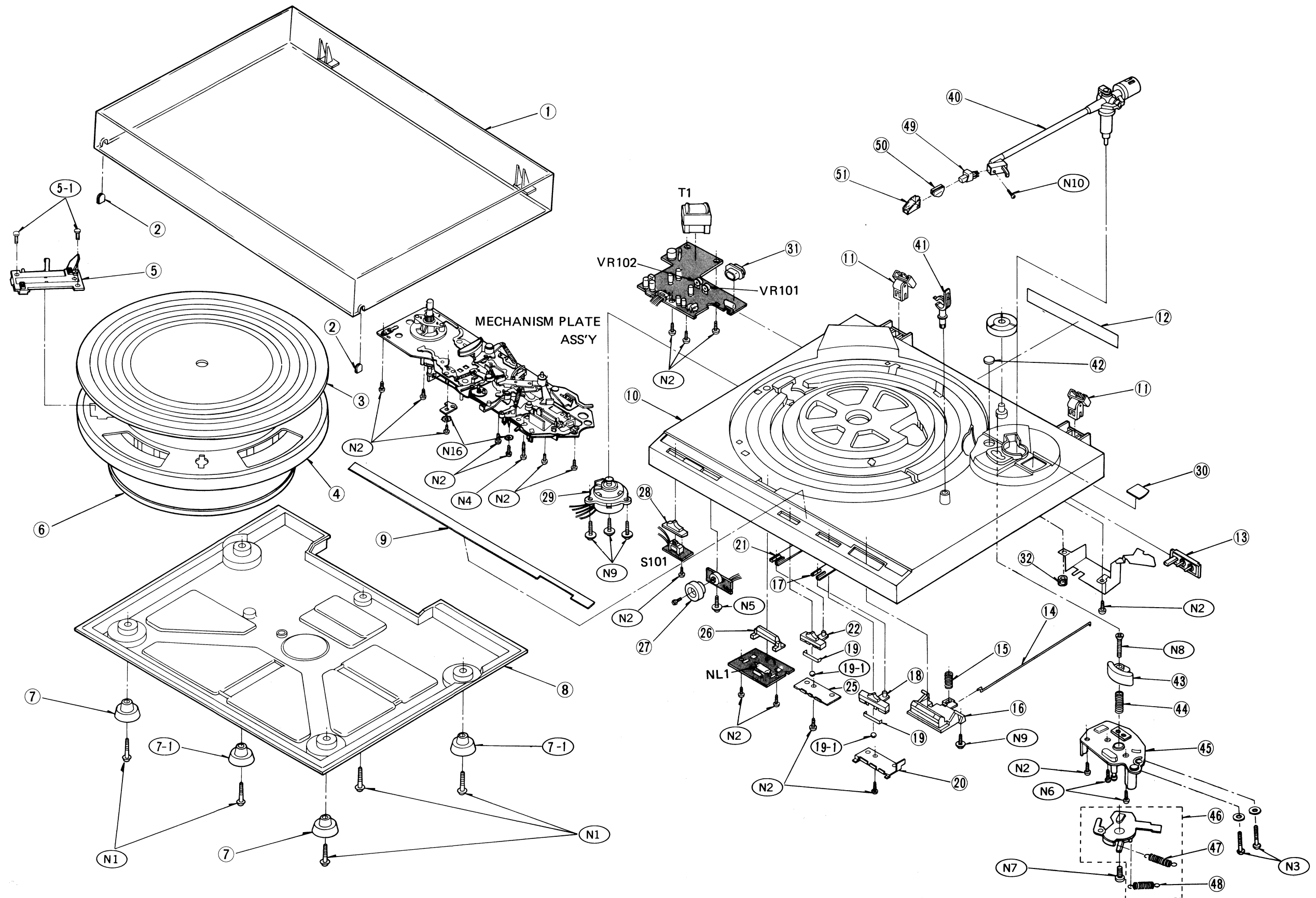


SV1BA6301



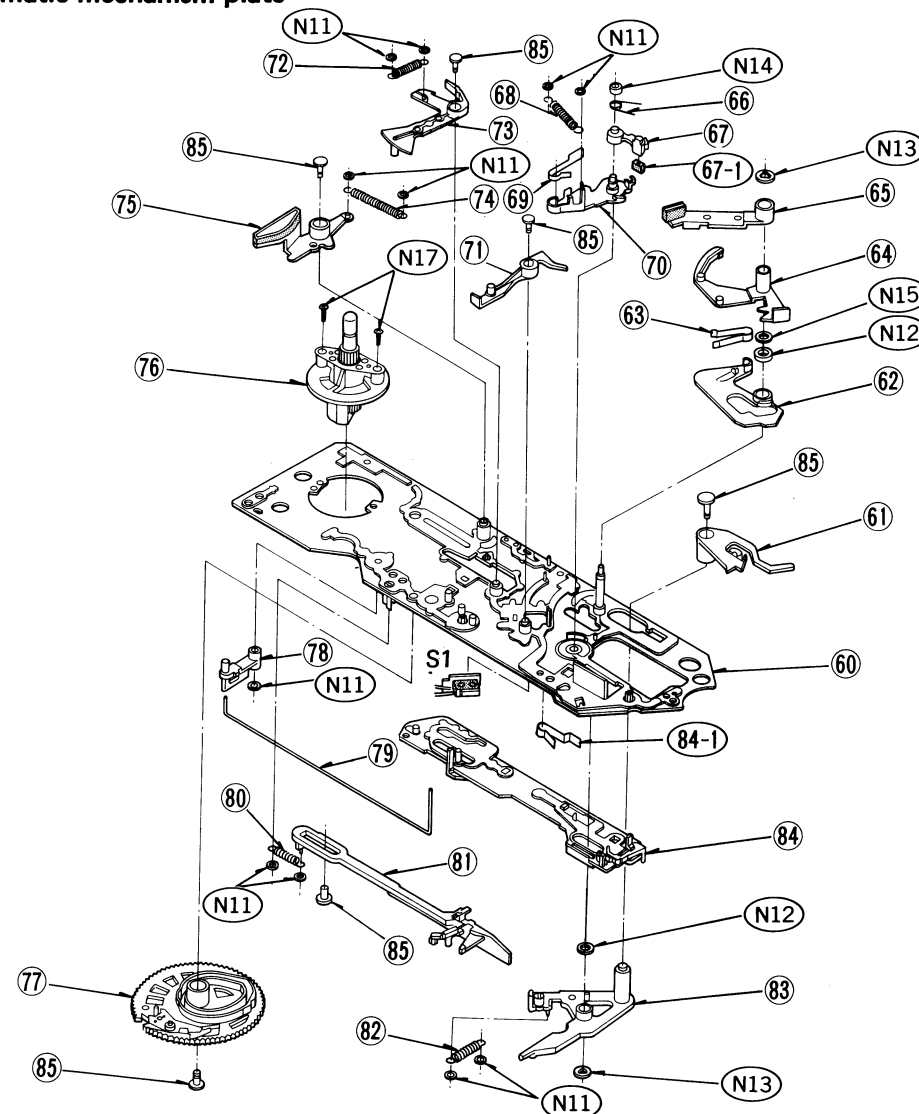
## ■ EXPLODED VIEWS

- **Cabinet and chassis**



## EXPLODED VIEWS

### Automatic mechanism plate



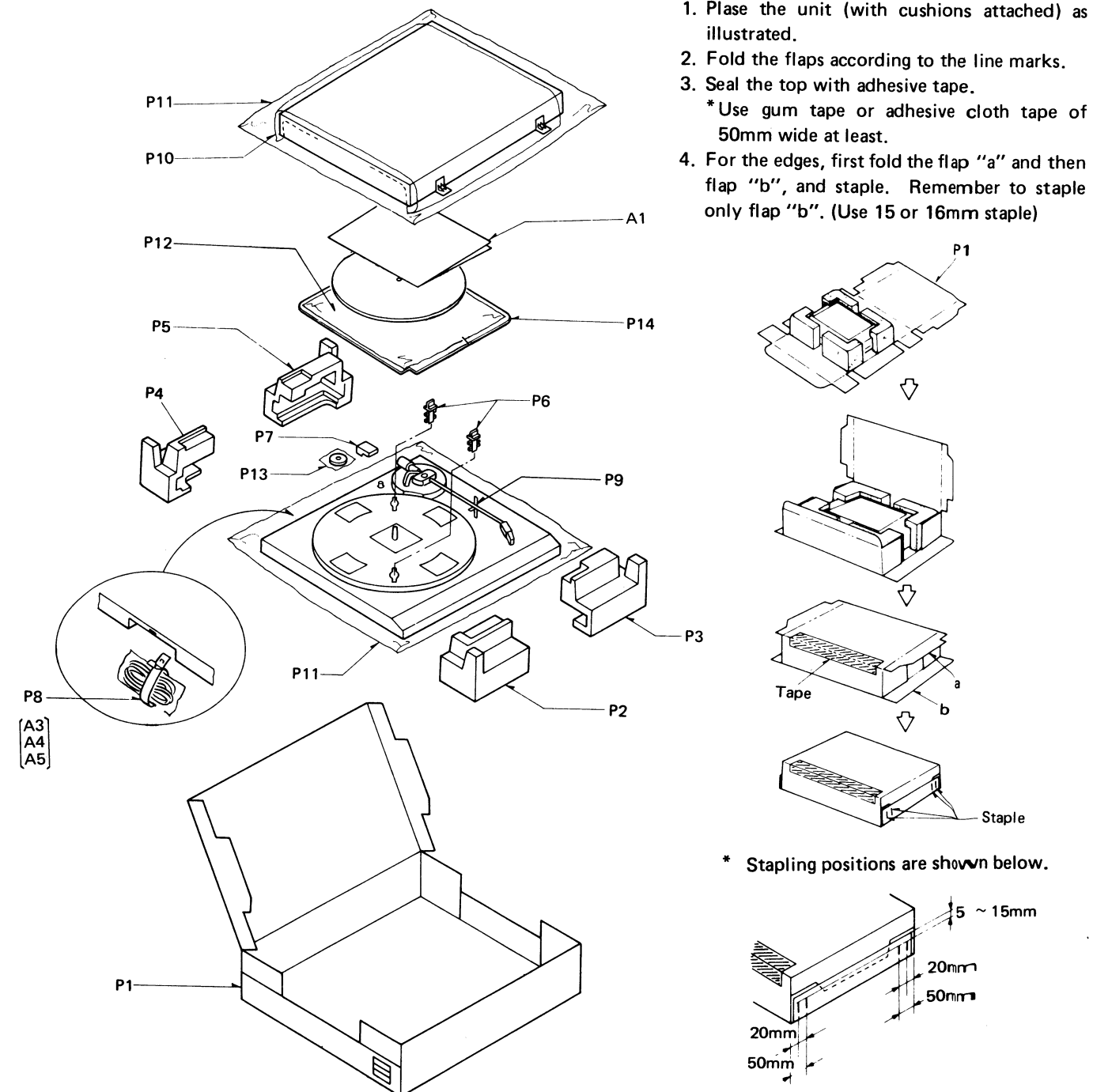
| Ref. No.                  | Part No.    | Description                               | Ref. No.                  | Part No.    | Description                        | Ref. No.           | Part No.          | Description    |                      |
|---------------------------|-------------|-------------------------------------------|---------------------------|-------------|------------------------------------|--------------------|-------------------|----------------|----------------------|
| AUTOMATIC MECHANISM ASS'Y |             |                                           | AUTOMATIC MECHANISM ASS'Y |             |                                    | SCREWS and WASHERS |                   |                |                      |
| 60                        | SFUKB63M51E | Plate Ass'y, Auto-<br>matic Mechanism (1) | 77                        | SFUGB63M51E | Main Gear Ass'y(1)                 | N13                | SFXWB63M52        | Washer (1)     |                      |
| 61                        | SFUMB63M65  | Guide, Switch<br>Lever (1)                | 78                        | SFUMB63M54  | Motive Plate (1)                   | N14                | SFUMZ15R61        | Washer (1)     |                      |
| 62                        | SFUMB63M62  | Sub Plate,<br>Index (1)                   | 79                        | SFQSB63M51  | Rod (1)                            | N15                | SFXWQ34N22        | Washer (1)     |                      |
| 63                        | SFQPB63M53  | Spring, Index (1)                         | 80                        | SFQHB63M51  | Spring, Cancell<br>Lever Ass'y (1) | N16                | Ⓢ XWC3            | Washer (2)     |                      |
| 64                        | SFUMB63M63  | Plate (A), Index(1)                       | 81                        | SFUMB63M53E | Lever Ass'y,<br>Cancell (1)        | N17                | XTV3+14J          | Screw Ⓡ3×14(2) |                      |
| 65                        | SFUMB63M64E | Plate (B), Ass'y,<br>Index (1)            | 82                        | SFQHB63M52  | Spring, Switch<br>Lever Ass'y (1)  | ACCESSORIES        |                   |                |                      |
| 66                        | SFQSB63M52  | Spring, Cueing<br>Cam (1)                 | 83                        | SFUMB63M55E | Lever Ass'y,<br>Switch (1)         | A1                 | [EK]              | SFNUB63G01     | Instruction Book (1) |
| 67                        | SFUMB63M61  | Lever, Break (1)                          | 84                        | SFUBB63M51E | Plate Ass'y Drive<br>(1)           | A1                 | [EG]              | SFNUB63R01     | Instruction Book (1) |
| 67-1                      | SFUZB63M52  | Flet, Break (1)                           | 84-1                      | SFQPB63M51  | Spring, Drive<br>Plate Ass'y (1)   | A1                 | [EF]              | SFNUB63F01     | Instruction Book (1) |
| 68                        | SFQHB63M55  | Spring, Cueing<br>Cam (1)                 | 85                        | SFUMZ15R56  | Pin (7)                            | A1                 | [Ei]              | SFNUB63i01     | Instruction Book (1) |
| 69                        | SFQPB63M52  | Spring, Cueing<br>Cam (1)                 | SCREWS and WASHERS        |             |                                    | A1                 | [XL] [XA]<br>[XM] | SFNUB63X01     | Instruction Book (1) |
| 70                        | SFUMB63M60  | Cam, Cueing (1)                           | N1                        | XTW3+14QFYR | Screw Ⓡ3×14 (5)                    | A1                 | [Other<br>Areas]  | SFNUB63S01     | Instruction Book (1) |
| 71                        | SFUMB63M59  | Lever, Cueing (1)                         | N2                        | Ⓢ XTV3+8BFN | Screw Ⓡ3×8 (17)                    | A2                 |                   | SFWE212-01     | 45r.p.m Adoptor (1)  |
| 72                        | SFQHB63M54  | Spring, Repeat<br>Plate (1)               | N3                        | XTV3+12J    | Screw Ⓡ3×12 (2)                    | A3                 | [XL] △            | SFDAC05L01     | AC Cord (1)          |
| 73                        | SFUMB63M58  | Lever, Repeat (1)                         | N4                        | XTV3+30J    | Screw Ⓡ3×30 (1)                    | A3                 | [XA] [XM] △       | SFDAC05X01     | AC Cord (1)          |
| 74                        | SFQHB63M53  | Spring, Record<br>Size Detector (1)       | N5                        | XTW3+8Q     | Screw Ⓡ3×8 (1)                     | A3                 | [Other<br>Areas]  | SFDAC05E01     | AC Cord (1)          |
| 75                        | SFUMB63M57E | Record Size<br>Detector Ass'y (1)         | N6                        | XYW3+F12    | Screw Ⓡ3×12 (2)                    | A4                 | [XL]              | SFDLC05N01     | Ground Wire (1)      |
| 76                        | SFTUB63M51A | Turntable Shaft<br>Ass'y (1)              | N7                        | XYC3+CG8    | Screw Ⓡ3×8 (1)                     | A4                 | [Other<br>Areas]  | SFDLZ15R01     | Ground Wire (1)      |
|                           |             |                                           | N8                        | XTS3+16FFZ  | Screw Ⓡ3×16 (1)                    | A5                 |                   | SFDHC05N01     | Phono Cord (1)       |
|                           |             |                                           | N9                        | SFXGB33N01  | Screw (4)                          | A6                 | [XA, XM<br>only]  | SFDKi19118     | 2P Plug (1)          |
|                           |             |                                           | N10                       | SFPEVOP301  | Screw (1)                          |                    |                   |                |                      |
|                           |             |                                           | N11                       | SFXWZ15R51  | Washer (11)                        |                    |                   |                |                      |
|                           |             |                                           | N12                       | SFXWB63M51  | Washer (2)                         |                    |                   |                |                      |

## PACKING

| Ref. No.             | Part No.   | Description          |
|----------------------|------------|----------------------|
| <b>PACKING PARTS</b> |            |                      |
| P1 (EF)              | SFHPB63C01 | Carton Box (1)       |
| P1 (Other Areas)     | SFHPB63M01 | Carton Box (1)       |
| P2                   | SFHHB63M01 | Pad, Front Left (1)  |
| P3                   | SFHHB63M02 | Pad, Front Right (1) |
| P4                   | SFHHB63M03 | Pad, Rear Left (1)   |
| P5                   | SFHHB63M04 | Pad, Rear Right (1)  |

| Ref. No.             | Part No.   | Description                         |
|----------------------|------------|-------------------------------------|
| <b>PACKING PARTS</b> |            |                                     |
| P6                   | SFHKB63M01 | Clamper, Turn-<br>table Platter (2) |
| P7                   | SFHZZ15R01 | Pad, Weight (1)                     |
| P8                   | SFHZZ15R02 | Stopper, AC Cord (1)                |
| P9                   | SFHZB63M01 | Clamper, Arm (1)                    |
| P10                  | SFHZD03M01 | Sheet (1)                           |

| Ref. No.             | Part No.   | Description                              |
|----------------------|------------|------------------------------------------|
| <b>PACKING PARTS</b> |            |                                          |
| P11                  | SFYH60X60  | Polyethylene Bag,<br>Unit/Dust Cover (2) |
| P12                  | SFYF30B35  | Polyethylene Bag,<br>Turntable (1)       |
| P13                  | SFYF05A06  | Polyethylene Bag,<br>45r.p.m Adoptor (1) |
| P14                  | SFHDZ15R01 | Pad, Turntable (1)                       |



1. Place the unit (with cushions attached) as illustrated.
2. Fold the flaps according to the line marks.
3. Seal the top with adhesive tape.  
\* Use gum tape or adhesive cloth tape of 50mm wide at least.
4. For the edges, first fold the flap "a" and then flap "b", and staple. Remember to staple only flap "b". (Use 15 or 16mm staple)

\* Stapling positions are shown below.

